Field Reports

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Cryptozoology, 3, 1984, 71–73
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ACTIVITIES OF THE ACADEMY OF APPLIED SCIENCE RELATED TO INVESTIGATIONS AT LOCH NESS, 1984

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INTRODUCTION

The question concerning the possible existence of large, unidentified animals in Loch Ness, Scotland, has been an unresolved one since at least the 1930's, when such animals began being reported on an international level. The Academy of Applied Science (AAS) began intensive operations at Loch Ness in the early 1970's. A summary of AAS research and results at the loch during the 1970's has appeared in this journal previously (see Robert H. Rines, 1982, Summarizing a Decade of Underwater Studies at Loch Ness, *Cryptozoology*, Vol. 1: 24–32).

This report updates the continuing testing of improved underwater camera equipment and techniques during the summer of 1984, preparatory to the planning of a future full-scale, extended-period, multi-team investigation. It is hoped that such investigation will ultimately produce definitive identification of the unknown residents of the loch. The 1984 fieldwork being reported on here took place at Loch Ness in July and early August.

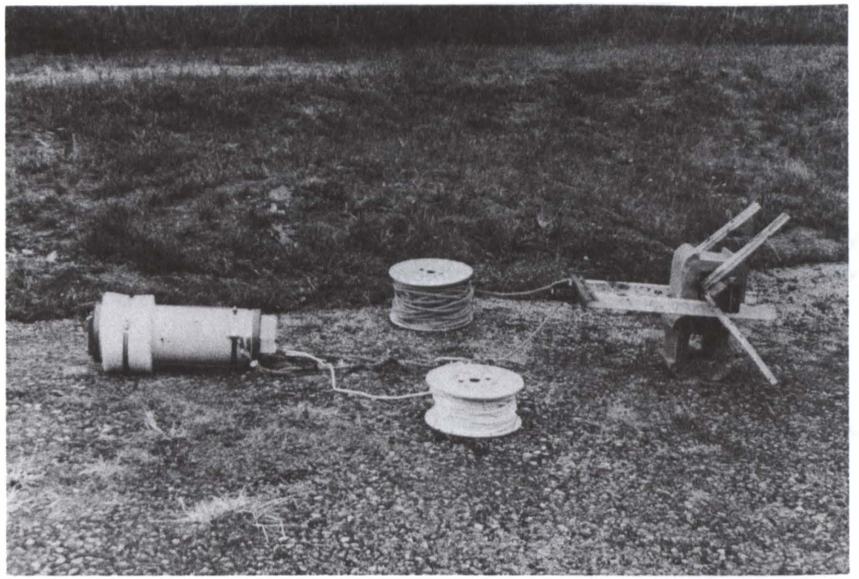

FIG. 1.—The unassembled parts of the silhouette camera and bottom mount.

NARRATIVE DESCRIPTION

Following on the most interesting earlier silhouette photographs obtained when the elapsed-time, upwardly pointed Edgerton 16mm camera of 1975 vintage continued exposing frames after the strobe batteries had been exhausted (see Robert H. Rines, Charles W. Wyckoff, Harold E. Edgerton, and Martin Klein, 1976, Search for the Loch Ness Monster, Figs. D and F, *Technology Review,* Vol. 78[5]: 25–40), Edgerton and his student Mark DeCew decided to test further the usefulness of this technique during daylight hours. The first tests were conducted in the Charles River across from the campus of the Massachusetts Institute of Technology. Actual on-site operations were conducted in Urquhart Bay, Loch Ness.

The camera and mount (Fig. 1) may be deployed in the loch in such a way that no suspending ropes or cables are required from the surface, thus leaving open space over the upwardly pointing camera, which floats submerged with tether passing through the camera mount (Fig. 2). With type 2484 film (2,000 16mm frames, f.2.8, with elapsed time periods of from 5 to 15 seconds), successful monitoring up to 7:00 p.m. during July was conducted at a depth of about 25 feet by DeCew and Robert Needleman. No significant target shadows were recorded.

It was found that scatter of daylight in the upper layers permitted some fill-in on calibration targets, so that detail other than just dark silhouettes

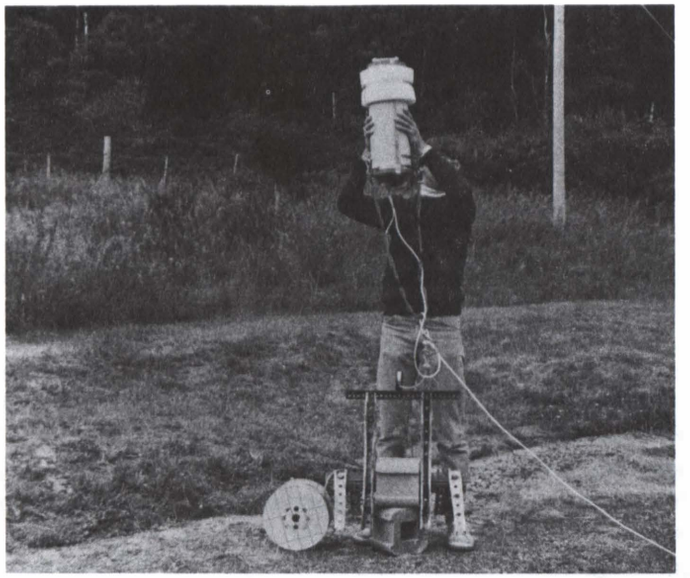

FIG. 2.—Simulation of the camera floating above the mount in a vertical orientation after deployment in the loch.

can sometimes be obtained. This may thus be a promising tool for future use, not requiring the complexity of electronic strobe and controls.

RESULTS

No photographic or electronic evidence of unknown animals was obtained during the 1984 fieldwork. As stated above, however, we are optimistic that the silhouette, elapsed-time camera technique tested further in 1984 may be useful over a sufficient number of daylight hours to be used as one of the monitoring tools for our future activities at Loch Ness.

FUTURE PLANS

We are starting the planning of what we hope may be definitive fieldwork. We invite suggestions on techniques and experiments that might be incorporated into what we expect to be a lengthy and more exhaustive investigation, perhaps one lasting year-round instead of just in the summer.

Up to the present time, our efforts have concentrated on what could be referred to as a "passive" mode; that is, the recording of whatever objects may pass into the range of our instruments. Changes in the future will include the "active" mode, in which our instruments will actually attempt to seek out whatever large animals may be inhabiting the loch.